Air Quality Permitting
Statement of Basis

January 19, 2006

Tier I Operating Permit No. T1-050103

TransCanada GTN System, Samuels

Facility ID No. 017-00037

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AIR QUALITY DIVISION

Public Comment Draft

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Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
Rules	Rules for the Control of Air Pollution in Idaho
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.362, Rules for the Control of Air Pollution in Idaho, for issuing Tier I operating permits.

2. FACILITY DESCRIPTION

TransCanada GTN System (TransCanada) operates a network of compressor stations that transmit natural gas from Canada to California along an underground pipeline system. The pipeline enters the United States in northern Idaho, continues through southeastern Washington and central Oregon, and enters California at its northern border. The network consists of 12 compressor stations located along the pipeline, all of which are designed for remote unattended operation from TransCanada's Gas Dispatch Center in Portland, OR. Each compressor station consists of one or more turbine-driven compressors that move the natural gas through the pipeline. The turbines use the natural gas in the pipeline as fuel and provide energy for the compressors.

Compressor Station #4 in Samuels, Idaho uses three turbines to power the compressors. The turbines are referenced as Unit 4A, 4B, and Unit 4C. Unit 4B is a Solar Mars 100S Low NO_x turbine with a maximum rated output capacity of 15,000 hp. Unit 4C is a Solar Mars T14000 standard turbine with a maximum rated output capacity of 14,100 hp. Unit 4A is a Solar Titan 130S SoLoNO_X™ turbine with a rated output capacity of 19,500 hp. All three turbines have their own stack.

3. FACILITY / AREA CLASSIFICATION

TransCanada is defined as a major facility by IDAPA 58.01.01.008.10 because TransCanada emits or has the potential to emit a regulated air pollutant in amounts greater than or equal to 100 tons per year. This facility is a major facility as defined by IDAPA 58.01.01.006.55, and the facility is subject to PSD permitting requirements because the facility emits or has the potential to emit a regulated air pollutant in amounts greater than or equal to 250 tons per year. This facility is not a designated facility as defined by IDAPA 58.01.01.006.27. This facility is subject to federal NSPS requirements in accordance with 40 CFR 60.

The facility is located within AQCR 63 and UTM zone 11. The facility is located in Bonner County which is designated unclassifiable for all federal and state criteria pollutants.

The AIRS information provided in Section 7 of this statement of basis defines the classification for each regulated air pollutant at TransCanada. This required information is entered into the EPA AIRs database.

4. APPLICATION SCOPE

TransCanada has submitted an application to renew its Tier I operating permit. TransCanada has certified that the facility has been modified during the term of its initial Tier I operating permit, and that new compressor unit was permitted. TransCanada has undergone two name changes, with the original Tier I operating permit issued under the name PG&E and a permit to construct issued under the name Gas Transmission Northwest Corporation. TransCanada has the following permitting history:

August 1, 2001	DEQ issued PG&E a Tier I operating permit under AIRS No. 017-00037.

April 4, 2002	DEQ issued PG&E a permit to construct (PTC) No. 017-00037 for the 4A turbine. This permit was for a major modification to compressor station No. 4.
March 24, 2003	DEQ issued PG&E modified PTC No. P-030100 for the 4A turbine.
March 10, 2005	DEQ issued Gas Transmission Northwest Corporation PTC No. P-040117 replacing PTC No. P-030100 for minor modifications in contact information and new testing requirements.
October 2, 2005	DEQ inactivated the application due to workload and resource constraints
December 2, 2005	DEQ activated the application and began processing
December 22, 2005	DEQ provided draft permit to the facility and the DEQ's Coeur d'Alene Regional Office for review and comment
January 27, 2006	DEQ provided draft permit for public comment

3.1 Application Chronology

November 4, 2004	DEQ received a Tier I operating permit renewal application from Gas Transmission Northwest Corporation.
February 14, 2005	DEQ acknowledged receipt of the application.

5. PERMIT ANALYSIS

Please refer to the technical memorandum developed for Tier I Operating Permit No. 017-00037, issued August 1, 2001, and the Statement of Basis developed for Permit to Construct No. P-040117, issued March 10, 2005.

4.1 Emissions Inventory

Please refer to the technical memorandum developed for Tier I Operating Permit No. 017-00037, issued August 1, 2001, and the Statement of Basis developed for Permit to Construct No. P-040117, issued March 10, 2005.

4.2 Modeling

Modeling is not required for Tier I operating permits.

4.3 Regulatory Review

Please refer to the technical memorandum developed for Tier I Operating Permit No. 017-00037, issued August 1, 2001, and the Statement of Basis developed for Permit to Construct No. P-040117, issued March 10, 2005.

The compliance assurance monitoring rule in 40 CFR 64 is a new regulation since the earlier technical memoranda were developed. During investigation of TransCanada for applicability to this rule, it was determined that there is no pollution control equipment to make the facility applicable to this rule. Emissions are controlled by dry low-NO_x combustion, achieved by reducing peak flame temperature

and employing lean pre-mixed combustion. However, "control device" in the rule refers to literal control equipment, so compliance assurance monitoring does not apply to this facility.

4.4 Fee Review

The TransCanada facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

6. PERMIT CONDITIONS

In the facility-wide conditions, Permit Condition 1.8 was removed and the following requirements re-numbered. Permit Condition 1.8 had originally been the monitoring requirement for visible emissions. Instead of conducting a quarterly inspection for visible emissions occurring more than three minutes in any 60-minute period at greater than 20% opacity, the facility is allowed to prove that only natural gas is burned in the turbines in order to meet the monitoring requirement for visible emissions. For Unit 4B, Section 3.8 is a new permit condition to allow the permittee to develop an emission factor for NO_x. For Unit 4C, Section 4.8 is a new permit condition to allow the permittee to develop an emission factor for NO_x. For Unit 4A, Section 5 is a new permit section to include the addition of the new turbine, permitted under Permit to Construct P-040117. There are no other changes to the permit conditions except for numbering due to new formatting. Table 1 provides the cross reference between the renewal and the Tier I operating permit issued August 1, 2001.

Table 1. PERMIT NUMBERING CROSS REFERENCE

Permit numbering in Tier I operating permit issued August 1, 2001	Permit numbering in the Renewal	Permit numbering in Tier I operating permit issued August 1, 2001	Permit numbering in the Renewal	Permit numbering in Tier I operating permit issued August 1, 2001	Permit numbering in the Renewal
1.1	2.1	1.23	2.23	3.2	4.2
1.2	2.2	1.24	2.24	3.3	4.3
1.3	2.3	1.25	2.25	3.4	4.4
1.4	2.4	1.26	2.26	3.5	4.5
1.5	2.5	1.27	2.27	3.6	4.6
1.6	2.6	2.1	3.1	3.7	4.7
1.7	2.7	2.2	3.2	3.8	4.8
1.8	Requirement removed	2.3	3.3	3.9	4.9
1.9	2.8	2.4	3.4	3.10	4.10
1.10	2.9	2.5	3.5	3.11	4.11
1.11	2.10	2.6	3.6	3.12	4.12
1.12	2.11	2.7	3.7	3.13	4.13
1.13	2.12	2.8	3.8	3.14	4.14
1.14	2.13	2.9	3.9	3.15	4.15
1.15	2.14	2.10	3.10	3.16	4.16
1.16	2.15	2.11	3.11		5 – new section
1.17	2.16	2.12	3.12	4.1	6.1
1.18	2.17	not numbered	3.13	5	7
1.19	2.18	2.13	3.14		
1.20	2.19	2.14	3.15		
1.21	2.20	2.15	3.16		
1.22	2.21	3.1	4.1		

With the use of standard facility-wide conditions and general provisions, there are minor differences between the renewal and the Tier I operating permit issued August 1, 2001 for the facility-wide conditions and general provisions. They are listed in the following sections.

5.1 Facility-Wide Conditions

To be consistent with current standard facility-wide conditions, "*Unless specified elsewhere in this permit*" is deleted from Permit Conditions 2.2, 2.3, 2.4, 2.6, 2.8, and 2.9. "*Federally enforceable; however, this provision will become state-only enforceable upon removal from the SIP*" is deleted from the citation of Permit Conditions 2.5 and 2.9.5. Permit Conditions 2.8 and 2.16 are reworded. "*Department*" is replaced with "*DEQ*".

5.2 General Provisions

To be consistent with current standard general provisions, the effective date of the regulation is added to the citation for each permit condition. "*Section 213 is a State Only requirement, but has been submitted to EPA for federal approval*" is removed from the citation of General Provision No.10. General Provision No. 16 about fees is revised as "*The owner or operator of a Tier I source shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397*". A specified reporting period of "*from January 1 to December 31*" is added to General Provision No. 21.1. Specified reporting periods of "*from January 1 to June 30*" and "*from July 1 to December 31*" are added to General Provision No. 24. General Provisions conditions are renumbered.

7. PERMIT REVIEW

7.1 Facility Review of Draft Permit

A facility draft permit was issued to the facility on December 22, 2005. Comments were received and incorporated as requested.

7.2 Public Comment

A 30-day public comment period for the TransCanada GTN System draft Tier I operating permit will be held from in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho.*

IDAPA 58.01.01.008.01 defines *affected states* as: *"All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within 50 miles of the Tier I source."*

A review of the site location information included in the permit application indicates that the facility is located with 50 miles of a state border. Therefore, the states of Montana and Washington will be provided an opportunity to comment on the draft Tier I operating permit.

8. AIRS

Table 9.1 AIRS/AFS [a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

AIR PROGRAM / POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N – Nonattainment
SO_2	B		B			B	U
NO_X	A	A	A			A	U
CO	A					A	U
PM_{10}	B					B	U
PT (Particulate)	B					ND	U
VOC	B					B	U
THAP (Total HAPs)	B					B	U
			APPLICABLE SUBPART				
			GG				

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

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